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**PN** - JP2001061742 A 20010313  
**PD** - 2001-03-13  
**PR** - JP19990241383 19990827  
**OPD** - 1999-08-27  
**TI** - SELF-TRAVELING AND WALKING TYPE FLOOR SURFACE WASHING MACHINE  
**IN** - UCHIYAMA TETSUYOSHI; IKEDA TORU; KENMOCHI NOBORU  
**PA** - AMANO CORP  
**IC** - A47L11/16 ; A47L9/28 ; A47L11/03

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**TI** - Floor cleaning machine comprises conversion device which switches rotation direction of motor, corresponding to handle movement and when handle is moved in reverse direction, squeegee is lifted  
**PR** - JP19990241383 19990827  
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**PA** - (AMAO ) AMANO CORP  
**IC** - A47L9/28 ;A47L11/03 ;A47L11/16 ;A47L11/293 ;A47L11/40  
**AB** - JP2001061742 NOVELTY - The washing apparatus comprises a conversion device, which switches the rotation direction of a motor, corresponding to the forward, reverse motion of a handle (10). When the handle is made to move in reverse direction, an elevation device lifts the squeegee (7) from the floor.  
 - USE - For cleaning floor surface, car, etc.  
 - ADVANTAGE - Since the squeegee is lifted during reverse movement of handle, operation becomes simple. Hence number of components is reduced which results in cost reduction.  
 - DESCRIPTION OF DRAWING(S) - The figure shows the side view of floor cleaning machine.  
 - Squeegee7  
 - Handle 10  
 - (Dwg.1/13)

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**PA** - AMANO CORP  
**TI** - SELF-TRAVELING AND WALKING TYPE FLOOR SURFACE WASHING MACHINE  
**AB** - PROBLEM TO BE SOLVED: To provide a self-traveling and walking type floor surface washing machine contrived to extremely simplify a driving operation, easily wash a floor

surface, simplify the entire constitution and reduce the manufacture cost.

- SOLUTION: A handle shaft **10** provided on the rear part of a car body **1** is provided with a traveling direction change means for switching the rotating direction of a motor **M4** for traveling to a forward movement direction and a backward movement direction corresponding to the normal/reverse rotating operation of the handle shaft **10** and a squeegee elevating means capable of elevating a squeegee **7** from the floor surface in the case of reversely rotating the handle shaft **10** in a retreating direction.

I - A47L11/16 ;A47L9/28 ;A47L11/03 ;A47L11/293 ;A47L11/40

